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EXAMINER

USTARIS, JOSEPH G

ART UNIT

PAPER NUMBER

2623

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

|                              |                                      |   |  |
|------------------------------|--------------------------------------|---|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>09/846,849 | <b>Applicant(s)</b><br>SCHWARTZMAN ET AL. |  |
|                              | <b>Examiner</b><br>Joseph G. Ustaris | <b>Art Unit</b><br>2623                   |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 17, 2006 has been entered.

Claims 1-63 are pending. Claims 1, 11, 23-28, 38, 45, and 54 are amended.

### ***Claim Rejections - 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. (The definition of "data structure" is "a physical or logical relationship among data elements, designed to support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare *In re Lowry*, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and *Warmerdam*, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with *Warmerdam*, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims 23-27 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 23 defines a program providing medium embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed program providing medium can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody (e.g. encoding) the program on "computer-readable medium" that is executed or equivalent in order to make the claim statutory. Any amendment to the claim should be commensurate with its corresponding disclosure.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2623

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 4-7, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US005883901A) in view of Burke et al. (US006233235B1) and Sawyer et al. (US006765925B1).

Regarding claim 1, Chiu et al. (Chiu) discloses a system for disabling and enabling receiver circuitry in a cable modem connected to a headend in a cable modem network (See Fig. 1; column 5 lines 20-34, column 11 lines 44-54, and column 12 lines 45-51). The signal conversion system (SCS) at the headend "transmits a first message with first instructions from the headend to the cable modem to disable the cable modem receiver circuitry" (See column 12 lines 45-51). The SCS of the headend "sets an indication of the cable modem receiver circuitry state to disabled" within the control frame subtype (See column 11 lines 44-54 and column 12 lines 45-51). Furthermore, the SCS at the headend can "transmit a second message with second instructions from the headend to enable the cable modem receiver circuitry" (See column 12 lines 45-51). The SCS of the headend also "sets the indication of the cable modem receiver circuitry state to enabled" within the control frame subtype (See column 11 lines 44-54 and column 12 lines 45-51). However, Chiu does not explicitly disclose (1) disabling the cable modem for periodic intervals separated by activation windows, where any message received during a period outside the activation window is ignored and (2) maintaining at the headend an indication of cable modem receiver circuitry state.

(1) Burke et al. (Burke) discloses a cable modem system that is able to control cable modems and perform power management (See Fig. 1). The control server at the headend is able to disable the cable modem receiver for periodic intervals (e.g. the cable modem is disabled anytime outside its assigned group alert phase) separated by activation windows (e.g. the cable modem may be activated during its assigned group alert phase) (See Figs. 3, 7, and 8; column 7 line 57 – column 8 line 52). Any messages received during a period outside the activation window (e.g. outside its assigned group alert phase) are ignored since the cable modem is in sleep mode. However, a group alert message or “second message” is processed when received within the “activation window”. Furthermore, the headend is configured to identify the activation window (e.g. the assigned group alert phase) corresponding to the time the cable modem receiver circuitry is enabled (e.g. when the cable modem will be awake) prior to transmitting the second message (e.g. group alert message) during the activation window since the control server or headend assigned the cable modems their group alert phase when the cable modems registered themselves with the control server or headend (See Figs. 3, 7, and 8; column 7 line 57 – column 8 line 52). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the SCS at the headend and cable modem disclosed by Chiu to be able to disable the cable modem for periodic intervals where any message received during a period outside the activation window is ignored, as taught by Burke, in order to provide a more efficient means of controlling the state of the cable modem thereby providing a better power management system that reduces the power consumption (See column 6 lines 25-30).

(2) Sawyer et al. (Sawyer) discloses a system and method of maintaining state in a data transmission system with cable modems. Sawyer discloses that the CMTS stores state information for each cable modem. The state information includes information pertaining to the state of communications between the CMTS and the cable modem (e.g. the channel the cable modem is using) or “maintaining at the headend an indication of cable modem receiver circuitry state” (See col. 1 line 42 – col. 2 line 35). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the headend/CMTS to “maintain at the headend an indication of cable modem receiver circuitry state”, as taught by Sawyer, in order to provide a central location and an efficient means of handling all state information of the cable modems.

Regarding claim 2, the disable message is a “unicast SYNCH message”, wherein the message is directed to a particular cable modem (See column 8 lines 9-20 and column 12 lines 45-51).

Regarding claim 4, the enable message is also a “unicast SYNCH message”, wherein the message is directed to a particular cable modem (See column 8 lines 9-20 and column 12 lines 45-51).

Regarding claim 5, Chiu in view of Burke and Sawyer discloses that various time periods can be defined for when the receiver is enabled or disabled based on the predetermined sleep interval (See Burke column 6 lines 30-35).

Official Notice is taken that is well known schedule an “activation window” for any amount of time (e.g. 100 milliseconds). Therefore, it would have been obvious to one

with ordinary skill in the art at the time the invention was made to modify the “activation window” disclosed by Chiu in view of Burke and Sawyer to be any amount of time (e.g. 100 milliseconds) in order to provide more options for the system to protect the access to the network.

Regarding claim 6, Chiu in view of Burke and Sawyer discloses that various time periods can be defined for when the receiver is enabled or disabled based on the predetermined sleep interval (See Burke column 6 lines 30-35).

Official Notice is taken that is well known schedule the “periodic intervals” for any amount of time (e.g. 10 seconds). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the “periodic intervals” disclosed by Chiu in view of Burke and Sawyer to be any amount of time (e.g. 10 seconds) in order to provide more options for the system to protect the access to the network.

Regarding claim 7, when the cable modem is disabled for the “periodic intervals”, inherently received messages are ignored as discussed in claim 1 above.

Regarding claim 9, when the cable modem is disabled for the “periodic intervals”, inherently the transmitter circuitry is also disabled.

Regarding claim 10, inherently, when the cable modem is disabled, the transmitter circuitry is also disabled as discussed in claim 9 above. Therefore, no messages are transmitted from the cable modem to the headend.



Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US005883901A) in view of Burke et al. (US006233235B1) and Sawyer et al. (US006765925B1) as applied to claims 1, 2, 4-7, 9, and 10 above, and further in view of Brusaw (US005523781A).

Regarding claim 3, Chiu in view of Burke and Sawyer does not explicitly disclose that the messages contain periodic intervals and activation window information.

Brusaw discloses a system for controlling a television by using control messages (See column 3 line 63 – column 4 line 2). Brusaw discloses that the messages can contain times or “periodic intervals and activation window information” of when certain commands are to be executed (See column 10 line 66 – column 11 line 10). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the messages disclosed by Chiu in view of Burke and Sawyer to include periodic intervals and activation window information, as taught by Brusaw, in order to provide a more efficient means of transporting various commands and command attributes to and from the headend and cable modem.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US005883901A) in view of Burke et al. (US006233235B1) and Sawyer et al. (US006765925B1) as applied to claims 1, 2, 4-7, 9, and 10 above, and further in view of Wall et al. (US 20030037160A1).

Regarding claim 8, Chiu in view of Burke and Sawyer does not disclose that the cable modem ignores multicast messages during an “activation window”.

Wall et al. (Wall) discloses a system that is able to control the entry of data to a network environment. Wall discloses that some network nodes are configured to automatically ignore multicast messages (See paragraph 0018). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the cable modem disclosed by Chiu in view of Burke and Sawyer to be configured to ignore multicast messages, as taught by Wall, in order to provide a more secure and bandwidth efficient connection to the network.

Claims 11-19, 21-29, 31-34, 36-39, 41-50, 52-60, 62, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US005883901A) in view of Burke et al. (US006233235B1).

Regarding claim 11, Chiu et al. (Chiu) discloses a system for disabling and enabling receiver circuitry in a cable modem connected to a headend in a cable modem network (See Fig. 1; column 5 lines 20-34, column 11 lines 44-54, and column 12 lines 45-51). The signal conversion system (SCS) at the headend "transmits a first message with first instructions from the headend to the cable modem to disable the cable modem receiver circuitry" (See column 12 lines 45-51). The SCS of the headend "sets an indication of the cable modem receiver circuitry state to disabled" within the control frame subtype (See column 11 lines 44-54 and column 12 lines 45-51). Furthermore, the SCS at the headend can "transmit a second message with second instructions from the headend to enable the cable modem receiver circuitry" (See column 12 lines 45-51). The SCS of the headend also "sets the indication of the cable modem receiver circuitry

state to enabled" within the control frame subtype (See column 11 lines 44-54 and column 12 lines 45-51). Furthermore, the cable modem receives the commands and disables/enables the cable modem according to the instructions within the messages. However, Chiu does not disclose disabling the cable modem for periodic intervals separated by activation windows, where any message received during a period outside the activation window is ignored.

Burke et al. (Burke) discloses a cable modem system that is able to control cable modems and perform power management (See Fig. 1). The control server at the headend is able to disable the cable modem receiver for periodic intervals (e.g. the cable modem is disabled anytime outside its assigned group alert phase) separated by activation windows (e.g. the cable modem may be activated during its assigned group alert phase) (See Figs. 3, 7, and 8; column 7 line 57 – column 8 line 52). Any messages received during a period outside the activation window (e.g. outside its assigned group alert phase) are ignored since the cable modem is in sleep mode. However, a group alert message or "second message" is processed when received within the "activation window". Furthermore, the headend is configured to identify the activation window (e.g. the assigned group alert phase) corresponding to the time the cable modem receiver circuitry is enabled (e.g. when the cable modem will be awake) prior to transmitting the second message (e.g. group alert message) during the activation window since the control server or headend assigned the cable modems their group alert phase when the cable modems registered themselves with the control server or headend (See Figs. 3, 7, and 8; column 7 line 57 – column 8 line 52). Therefore, it would have been obvious to

one with ordinary skill in the art at the time the invention was made to modify the SCS at the headend and cable modem disclosed by Chiu to be able to disable the cable modem for periodic intervals where any message received during a period outside the activation window is ignored, as taught by Burke, in order to provide a more efficient means of controlling the state of the cable modem thereby providing a better power management system that reduces the power consumption (See column 6 lines 25-30).

Regarding claim 12, the disable message is a "unicast SYNCH message", wherein the message is directed to a particular cable modem (See column 8 lines 9-20 and column 12 lines 45-51).

Regarding claim 13, Chiu in view of Burke discloses that the cable modem has a tuner (See Fig. 3, tuner 303). However, Chiu in view of Burke does not explicitly disclose that the tuner includes an RF amplifier, a mixer, a phase lock loop, and an IF amplifier.

Official Notice is taken that it is well known for tuners to include an RF amplifier, a mixer, a phase lock loop, and an IF amplifier. Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the tuner of the cable modem disclosed by Chiu in view of Burke to include an RF amplifier, a mixer, a phase lock loop, and an IF amplifier in order to provide a more efficient tuner thereby enhancing the performance of the tuner.

Regarding claim 14, the receiver further comprises a demodulator (See Chiu column 17 lines 7-10).

Regarding claim 15, the cable modem receiver further comprises one or more processors coupled with memory (See Chiu Fig. 3, microprocessor 302 and memory 309).

Regarding claim 16, the enable message is also a "unicast SYNCH message", wherein the message is directed to a particular cable modem (See column 8 lines 9-20 and column 12 lines 45-51).

Regarding claim 17, Chiu in view of Burke discloses that various time periods can be defined for when the receiver is enabled or disabled based on the predetermined sleep interval (See Burke column 6 lines 30-35).

Official Notice is taken that is well known schedule an "activation window" for any amount of time (e.g. 100 milliseconds). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the "activation window" disclosed by Chiu in view of Burke to be any amount of time (e.g. 100 milliseconds) in order to provide more options for the system to protect the access to the network.

Regarding claim 18, Chiu in view of Burke discloses that various time periods can be defined for when the receiver is enabled or disabled based on the predetermined sleep interval (See Burke column 6 lines 30-35).

Official Notice is taken that is well known schedule the "periodic intervals" for any amount of time (e.g. 10 seconds). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the "periodic

intervals" disclosed by Chiu in view of Burke to be any amount of time (e.g. 10 seconds) in order to provide more options for the system to protect the access to the network.

Regarding claim 19, when the cable modem is disabled for the "periodic intervals", inherently received messages are ignored as discussed in claim 1 above.

Regarding claim 21, when the cable modem is disabled for the "periodic intervals", inherently the transmitter circuitry is also disabled.

Regarding claim 22, inherently, when the cable modem is disabled, the transmitter circuitry is also disabled as discussed in claim 9 above. Therefore, no messages are transmitted from the cable modem to the headend.

Claim 23 contains the limitations of claim 11 (where inherently the SCS of the headend executes a computer program that has program instructions on a computer readable medium) and is analyzed as previously discussed with respect to that claim.

Claim 24 contains the limitations of claims 12 and 23 and is analyzed as previously discussed with respect to those claims.

Claim 25 contains the limitations of claims 16 and 23 and is analyzed as previously discussed with respect to those claims.

Claim 26 contains the limitations of claims 17 and 23 and is analyzed as previously discussed with respect to those claims.

Claim 27 contains the limitations of claims 18 and 23 and is analyzed as previously discussed with respect to those claims.

Claim 28 contains the limitations of claim 11 (wherein the headend transmits the messages) and is analyzed as previously discussed with respect to that claim.

Furthermore, the headend has memory and one or more processors (See Chiu Fig. 2, CPU 209 and RAM).

Claim 29 contains the limitations of claims 12 and 28 and is analyzed as previously discussed with respect to those claims.

Claim 31 contains the limitations of claims 16 and 28 and is analyzed as previously discussed with respect to those claims.

Claim 32 contains the limitations of claims 17 and 28 and is analyzed as previously discussed with respect to those claims.

Claim 33 contains the limitations of claims 18 and 28 and is analyzed as previously discussed with respect to those claims.

Claim 34 contains the limitations of claims 19 and 28 and is analyzed as previously discussed with respect to those claims.

Claim 36 contains the limitations of claims 21 and 28 and is analyzed as previously discussed with respect to those claims.

Claim 37 contains the limitations of claims 22 and 28 and is analyzed as previously discussed with respect to those claims.

Claim 38 contains the limitations of claim 11 (wherein the cable modem or "apparatus" has a transmitter, memory, one or more processors, and a receiver (See Chiu Fig. 3)) and is analyzed as previously discussed with respect to that claim.

Claim 39 contains the limitations of claims 12 and 38 and is analyzed as previously discussed with respect to those claims.

Claim 41 contains the limitations of claims 16 and 38 and is analyzed as previously discussed with respect to those claims.

Claim 42 contains the limitations of claims 13 and 38 and is analyzed as previously discussed with respect to those claims.

Claim 43 contains the limitations of claims 14 and 42 and is analyzed as previously discussed with respect to those claims.

Claim 44 contains the limitations of claims 15 and 43 and is analyzed as previously discussed with respect to those claims.

Claim 45 contains the limitations of claims 11 and is analyzed as previously discussed with respect to that claim.

Claim 46 contains the limitations of claims 12 and 45 and is analyzed as previously discussed with respect to those claims.

Claim 47 contains the limitations of claims 16 and 45 and is analyzed as previously discussed with respect to those claims.

Claim 48 contains the limitations of claims 17 and 45 and is analyzed as previously discussed with respect to those claims.

Claim 49 contains the limitations of claims 18 and 45 and is analyzed as previously discussed with respect to those claims.

Claim 50 contains the limitations of claims 19 and 45 and is analyzed as previously discussed with respect to those claims.

Claim 52 contains the limitations of claims 21 and 45 and is analyzed as previously discussed with respect to those claims.



Claim 53 contains the limitations of claims 22 and 45 and is analyzed as previously discussed with respect to those claims.

Claim 54 contains the limitations of claim 11 and is analyzed as previously discussed with respect to that claim.

Claim 55 contains the limitations of claims 12 and 54 and is analyzed as previously discussed with respect to those claims.

Claim 56 contains the limitations of claims 13 and 54 and is analyzed as previously discussed with respect to those claims.

Claim 57 contains the limitations of claims 14 and 56 and is analyzed as previously discussed with respect to those claims.

Claim 58 contains the limitations of claims 15 and 57 and is analyzed as previously discussed with respect to those claims.

Claim 59 contains the limitations of claims 16 and 54 and is analyzed as previously discussed with respect to those claims.

Claim 60 contains the limitations of claims 19 and 54 and is analyzed as previously discussed with respect to those claims.

Claim 62 contains the limitations of claims 21 and 54 and is analyzed as previously discussed with respect to those claims.

Claim 63 contains the limitations of claims 22 and 54 and is analyzed as previously discussed with respect to those claims.

Claims 20, 35, 51, and 61 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US005883901A) in view of Burke et al. (US006233235B1) as applied to claims 11-19, 21-29, 31-34, 36-39, 41-50, 52-60, 62, and 63 above, and further in view of Wall et al. (US 20030037160A1).

Regarding claim 20, Chiu in view of Burke does not disclose that the cable modem ignores multicast messages during an "activation window".

Wall et al. (Wall) discloses a system that is able to control the entry of data to a network environment. Wall discloses that some network nodes are configured to automatically ignore multicast messages (See paragraph 0018). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the cable modem disclosed by Chiu in view of Burke to be configured to ignore multicast messages, as taught by Wall, in order to provide a more secure and bandwidth efficient connection to the network.

Claim 35 contains the limitations of claims 20 and 28 and is analyzed as previously discussed with respect to those claims.

Claim 51 contains the limitations of claims 20 and 45 and is analyzed as previously discussed with respect to those claims.

Claim 61 contains the limitations of claims 20 and 54 and is analyzed as previously discussed with respect to those claims.

Claims 30 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chiu et al. (US005883901A) in view of Burke et al. (US006233235B1) as applied

to claims 11-19, 21-29, 31-34, 36-39, 41-50, 52-60, 62, and 63 above, and further in view of Brusaw (US005523781A).

Regarding claim 30, Chiu in view of Burke does not explicitly disclose that the messages contain periodic intervals and activation window information.

Brusaw discloses a system for controlling a television by using control messages (See column 3 line 63 – column 4 line 2). Brusaw discloses that the messages can contain times or “periodic intervals and activation window information” of when certain commands are to be executed (See column 10 line 66 – column 11 line 10). Therefore, it would have been obvious to one with ordinary skill in the art at the time the invention was made to modify the messages disclosed by Chiu in view of Burke to include periodic intervals and activation window information, as taught by Brusaw, in order to provide a more efficient means of transporting various commands and command attributes to and from the headend and cable modem.

Claim 40 contains the limitations of claims 30 and 39 and is analyzed as previously discussed with respect to those claims.

### ***Response to Arguments***


4. Applicant's arguments with respect to claims 1-63 have been considered but are moot in view of the new ground(s) of rejection.


***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph G. Ustaris whose telephone number is 571-272-7383. The examiner can normally be reached on M-F 7:30-5PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
JGU  
December 14, 2006

  
CHRIS KELLEY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600